

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:
 - a first unit that converts image area information related to a predetermined image area of image data into predetermined information; and
 - a second unit that attaches the predetermined information to the image data.
2. The image processing apparatus according to claim 1, wherein
 - 10 the predetermined information is coordinates of a rectangle, and
 - the second unit attaches the coordinates to the image data as a tag based on a predetermined format.
3. The image processing apparatus according to claim 1, wherein
 - 15 the predetermined information is coordinates of a rectangle, and
 - the second unit attaches the coordinates to the image data by embedding the coordinates in the image data.
4. The image processing apparatus according to claim 1, wherein
 - 20 the predetermined information is a predetermined block of the image area information, and
 - the second unit attaches the predetermined block to the image data by embedding the predetermined block in the image data.

5. The image processing apparatus according to claim 1, wherein
the predetermined information is a predetermined block of the
image area information, and
the second unit attaches the predetermined block to the image
5 data as a tag based on a predetermined format.

6. The image processing apparatus according to claim 5, wherein
the predetermined block is compressed, and the second unit attaches
the predetermined block that has been compressed to the image data
10 as the tag.

7. The image processing apparatus according to claim 1, wherein
the image area information is a result of halftone area separation.

15 8. The image processing apparatus according to claim 1, wherein
the image area information is a result of white ground area separation.

9. The image processing apparatus according to claim 1, wherein
the image area information is a result of color area separation.

20 10. The image processing apparatus according to claim 1, wherein
the image area information is a result of edge area separation.

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11. The image processing apparatus according to claim 1, wherein
the image area information is a combination of a plurality types of
results of image area separation.

5 12. The image processing apparatus according to claim 1, wherein
the predetermined information is coordinates of a rectangle,
the second unit attaches the coordinates to the image data as a
tag based on a predetermined format, and
the image processing apparatus further comprises a third unit
10 that embeds other information other than the predetermined information
into a predetermined block of the image data.

13. The image processing apparatus according to claim 12, wherein
the image area information, and the other information each is any one
15 of results of halftone area separation, white ground area separation,
color area separation, and edge area separation, and a combination of
a plurality types of results of image area separation.

14. An image processing apparatus comprising:
20 a first unit that receives image data including a predetermined
image area information and an image file to which the predetermined
image area information is attached;
a second unit that extracts the predetermined image area
information from the image data; and
25 a third unit that performs image processing by using the

predetermined image area information.

15. The image processing apparatus according to claim 14, wherein
the predetermined image area information is attached to the image file
5 as a tag.

16. The image processing apparatus according to claim 14, wherein
the predetermined image area information attached to the image file is
embedded in the image file as a watermark.

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17. The image processing apparatus according to claim 14, wherein
the first unit receives the image data that has been converted
into another image data having characteristics different from
characteristics of the image data,

15 the image processing apparatus further comprises:

a fourth unit that obtains other image area information
from the another image data; and

a fifth unit that determines characteristics of a
predetermined area based on the predetermined image area
20 information and the other image area information, and
the third unit performs the image processing using the
characteristics determined by the fifth unit.

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18. The image processing apparatus according to claim 17, wherein
the another image data is the image data that has been subjected to
resolution conversion.

5 19. The image processing apparatus according to claim 17, wherein
the another image data is the image data that has been subjected to
lossy compression.

10 20. An image processing method comprising:
converting image area information related to a predetermined
image area of image data into predetermined information; and
attaching the predetermined information to the image data.

15 21. The image processing method according to claim 20, wherein
the predetermined information is coordinates of a rectangle, and
the attaching is performed by attaching the coordinates to the
image data as a tag based on a predetermined format.

20 22. The image processing method according to claim 20, wherein
the predetermined information is coordinates of a rectangle, and
the attaching is performed by embedding the coordinates in the
image data.

23. The image processing method according to claim 20, wherein
the predetermined information is a predetermined block of the
image area information, and
the attaching is performed by embedding the predetermined
5 block in the image data.

24. The image processing method according to claim 20, wherein
the predetermined information is a predetermined block of the
image area information, and
10 the attaching is performed by attaching the predetermined block
to the image data as a tag based on a predetermined format.

25. A computer readable recording medium that stores a computer
program including computer executable instructions which when
15 executed by a computer, cause the computer to perform:
converting image area information related to a predetermined
image area of image data into predetermined information; and
attaching the predetermined information to the image data.

20 26. The computer readable recording medium according to claim 25,
wherein
the predetermined information is coordinates of a rectangle, and
the attaching is performed by attaching the coordinates to the
image data as a tag based on a predetermined format.

27. The computer readable recording medium according to claim 25,
wherein

the predetermined information is coordinates of a rectangle, and
the attaching is performed by embedding the coordinates in the
image data.

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28. The computer readable recording medium according to claim 25,
wherein

the predetermined information is a predetermined block of the
10 image area information, and
the attaching is performed by embedding the predetermined
block in the image data.

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29. The computer readable recording medium according to claim 25,
15 wherein

the predetermined information is a predetermined block of the
image area information, and
the attaching is performed by attaching the predetermined block
to the image data as a tag based on a predetermined format.

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